F.H.W.A. REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
3	MD	/		

1

PROJECT DESCRIPTION

GENERAL

This project includes the construction of one new traffic signal at MD 458 (Silver Hill Road) and Navy Day Drive and reconstruction of existing signal at MD 458 (Silver Hill Road) and Suitland Parkway during the widening of Silver Hill Road for proposed Metro Station. Existing signal at MD 458 (Silver Hill Road) and Parkway Terrace will be removed. Silver Hill Road is assumed to run in an east-west direction. Suitland Parkway, Parkway Terrace and Navy Day Drive are assumed to run in a north-south direction.

INTERSECTION OPERATION

The intersection of MD 458 (Silver Hill Road) and the Suitland Parkway Ramps and new West entrance of the Metro will operate in a NEMA four-phase semi-traffic-actuated mode with eastbound and westbound MD 458 (Silver Hill Road) operating concurrently and the Suitland Parkway Ramp and West Entrance of Metro operating independently.

Eight phase (fully-actuated) traffic signal controller and system ready base-mounted cabinet, and 15 loop detectors will be installed at this intersection.

CONSTRUCTION DETAILS

A. Install 27' steel pole with single 36' mast arm, traffic signal heads, pedestrian signal heads, pushbutton, 10' lighting arm and luminaire and signs as shown (NOTE: 2-3" PVC 90 degree angle conduit bends).

B. Install 27' steel pole with single 60' mast arm, traffic signal heads, pedestrian signal heads and pushbutton, 20' lighting arm and luminaire and signs as shown (NOTE: 2-3" PVC 90 degree angle conduit bends).

C. Install 27' steel pole with 1¼" galvanized steel conduit and weatherhead for service riser, single 52' mast arm with traffic signal heads, pedestrian signal head, 15' lighting arm and luminaire, and signs as shown (NOTE: 2-3" PVC 90 degree angle conduit bends and 1-2" PVC schedule 80 90 degree angle conduit bend).

D. Install 27' steel pole with single 44' mast arm with traffic signal heads, pedestrian signal head, 20' lighting arm with luminaire, and signs as shown (NOTE: 2-3" PVC 90 degree angle conduit bends).

E. Install traffic signal controller with control and distribution equipment (see drawing B-14) in base-mounted, system-ready cabinet.(NOTE: 1- 2" PVC 90 degree angle (schedule 80) conduit bend and 2-4" PVC 90 degree angle conduit bends).

F. Install handhole.

G. Install 1" electrical conduit detector wire sleeve.

H. Install 2" schedule 40 electrical conduit-trenched/buried.

I. Install 2" schedule 80 electrical conduit-trenched/buried.

J. Install 2" schedule 80 electrical conduit-pushed/under existing pavement

K. Install 3" schedule 40 electrical conduit-trenched/buried.

L. Install 4" schedule 80 electrical conduit-pushed/under existing pavement.

M. Install 2-4" schedule 40 electrical conduit-trenched/buried.

N. Install 6'x 30' loop detector quadrupole type (2-4-2 turns).

O. Install 6' x 6' loop detector (3-turns).

P. Install 24" solid white stop line.

Q. Install pedestrian crosswalk (12" solid white line).

R. Remove existing handhole.

S. Remove and salvage existing signal conduit.

T. Cap and abandon existing equipment.

GENERAL NOTES

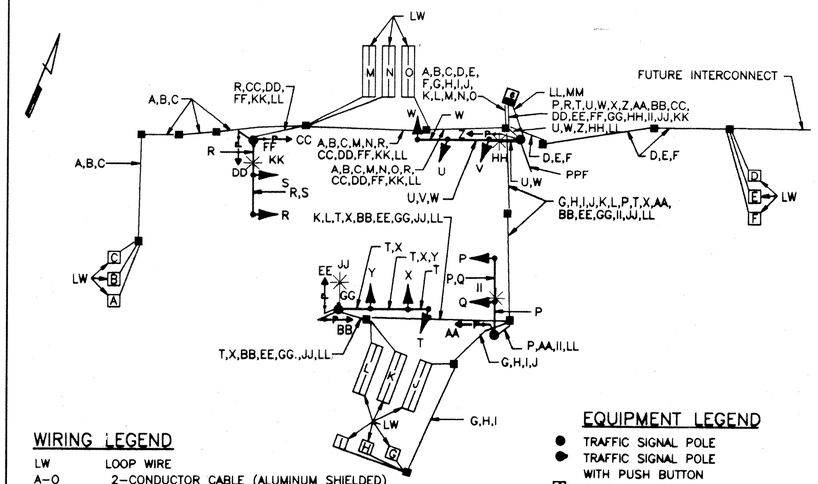
1. Geometrics shall be confirmed prior to the installation of signal equipment.
2. Loop detectors and conduits shall be installed prior to the installation of pavement markings.
3. All utilities are shown in their approximate location and are not to be considered as complete. The contractor shall be responsible for contacting Miss Utility to verify the location of all utilities. The Contractor shall contact the Project Engineer prior to construction if there may be potential conflicts.
4. Pavement markings detailed are proposed and are to be installed by the Contractor in accordance with S.H.A. standards. All others pavement markings will be installed as part of the highway contract.
5. D.O. indicates delay output loop detector.
6. This project shall to be constructed in accordance with latest edition of "Maryland Standard Specification for Construction and Materials" and all addendums thereto.
7. Upon completion of this project, the Contractor shall notify Mr. Robert Snyder at (410) 787-7631 to arrange for the telephone line installation. The Contractor is to provide Mr. Robert Snider with the nearest street address, zip code and phone number.

EQUIPMENT LIST

C. Equipment to be removed by the contractor and delivered to:

State Highway Administration, Office of Traffic and Safety, Signal Operations, 7491 Connelley Drive, Hanover, Maryland 21076. Contct Mr. Ed Rodenhizer at (410) 787-7650 at least 48 hours in advance of delivery.

QUNTITY	UNIT	DESCRIPTION
7	EA	12" one-way three-section traffic signal head.
1	EA	Traffic signal pole and single mast arm
1	EA	Traffic signal pole and twin mast arm
1	EA	Traffic signal controller and cabinet



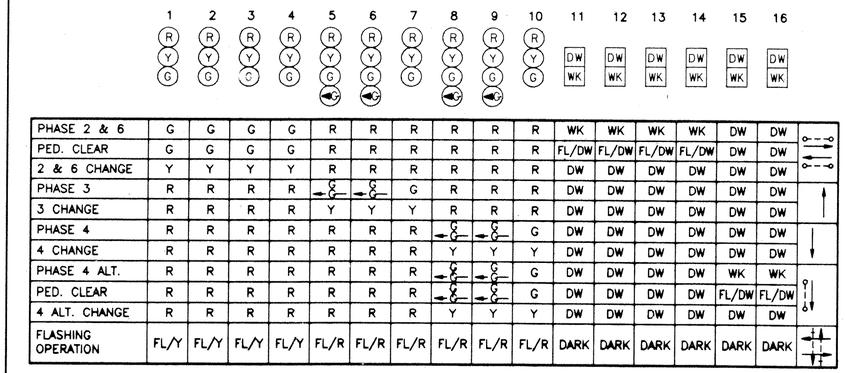
WIRING LEGEND

LW	LOOP WIRE
A–O	2-CONDUCTOR CABLE (ALUMINUM SHIELDED)
P,R,T,U,W	7-CONDUCTOR CABLE (NO. 14 A.W.G.)
Q,S,V,Y	5-CONDUCTOR CABLE (NO. 14 A.W.G.)
Z,AA–EE	3-CONDUCTOR CABLE (NO. 14 A.W.G.)
FF,GG MM	2-CONDUCTOR CABLE (NO. 14 A.W.G.)
HH–KK	2-CONDUCTOR TRAY CABLE (NO. 12 A.W.G.)
LL	GROUND WIRE (NO. 6 A.W.G.)
MM	2 INDIVIDUAL COPPER TYPE THWN (NO. 4 A.W.G.)
PPF	PROPOSED POWER FEED BY PEPCO

EQUIPMENT LEGEND

- TRAFFIC SIGNAL POLE
- TRAFFIC SIGNAL POLE WITH PUSH BUTTON
- BASE MOUNTED CABINET
- HANDHOLE
- TRAFFIC SIGNAL HEAD
- PEDESTRIAN SIGNAL HEAD
- LIGHTING ARM WITH LUMINAIRE

WIRING DIAGRAM



PHASE 2 & 6	G	G	G	G	R	R	R	R	R	R	WK	WK	WK	WK	DW	DW
PED. CLEAR	G	G	G	G	R	R	R	R	R	R	FL/DW	FL/DW	FL/DW	FL/DW	DW	DW
2 & 6 CHANGE	Y	Y	Y	Y	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW
PHASE 3	R	R	R	R	G	G	G	R	R	R	DW	DW	DW	DW	DW	DW
3 CHANGE	R	R	R	R	Y	Y	Y	R	R	R	DW	DW	DW	DW	DW	DW
PHASE 4	R	R	R	R	R	R	R	G	G	G	DW	DW	DW	DW	DW	DW
4 CHANGE	R	R	R	R	R	R	R	Y	Y	Y	DW	DW	DW	DW	DW	DW
PHASE 4 ALT.	R	R	R	R	R	R	R	G	G	G	DW	DW	DW	DW	WK	WK
PED. CLEAR	R	R	R	R	R	R	R	G	G	G	DW	DW	DW	DW	FL/DW	FL/DW
4 ALT. CHANGE	R	R	R	R	R	R	R	Y	Y	Y	DW	DW	DW	DW	DW	DW
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	DARK	DARK	DARK	DARK	DARK	DARK

PHASE SEQUENCE CHART

SS-02

REVISIONS:	APPROVALS:
A. REVISED 9/95 FOR METRO STATION CONSTRUCTION SR 3/12/99 — 1 APPROVED T.S. PLANS PER PCO 67	ORIGINAL CHIEF SIGNAL DESIGN SECTION ON ASST. DISTRICT ENGINEER TRAFFIC CHIEF TRAFFIC ENGINEERING DESIGN DIVISION FILE DIRECTOR OFFICE OF TRAFFIC & SAFETY

RUMMEL, KLEPPER & KAHL
CONSULTING ENGINEERS
81 MOSHER STREET
BALTIMORE, MD 21217
TEL. (410) 728-2900

MDOT – STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
LOG MILE # 16045800.90

DRAWN BY: ZAJ
DES. BY: ZAJ
CHK. BY:

MD 458 (SILVER HILL ROAD)
@ SUITLAND PARKWAY
GENERAL INFORMATION
COUNTY: PRINCE GEORGE'S

DATE: SEPTEMBER, 1995 W.M.A.T.A. NO. 1F0091
SCALE: 1"=20' S.H.A. NO.

TS NO.: 995A-GI-1
SHEET NO. M936-903

08/08/95 11:22:44